

## **REMARKS**

### **I. Introduction**

With the cancellation herein without prejudice of claim 19, and with the addition of new claim 38, claims 17, 18, 20 to 33 and 35 to 38 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that the present application is in condition for immediate allowance, and reconsideration is respectfully requested.

### **II. Double Patenting**

Regarding the provisional double patenting rejection, while this provisional rejection is not agreed with, to facilitate matters, Applicants are prepared to file a Terminal Disclaimer upon withdrawal of all other rejections and an indication that the present application is otherwise in condition for immediate allowance.

### **III. Traverse of Statements of Official Notice**

With respect to the statements of Official Notice in the present Office Action (e.g., in paragraph 40: “it is known in the art to optimize one sensor based on information from another sensor in order to increase accuracy”; in paragraph 49: “it is known in the art to adapt a processor or include electronics to filter noise from a signal or only pass selected features, for the benefit of decreasing noise and unwanted parts of the signal”; in paragraph 50: “it is known in the art to optimize one sensor signal based on information from another sensor in order to increase accuracy”; in paragraph 52: “it is known in the art to adapt a processor or include electronics to filter noise from a signal or only pass selected features, for the benefit of decreasing noise and unwanted parts of the signal”; and in paragraph 54: “it is known in the art to adapt a processor or include electronics to filter noise from a signal or only pass selected features, for the benefit of decreasing noise and unwanted parts of the signal”), Applicants **traverse** these statements of Official Notice and allegations of well-known fact, and Applicants respectfully request published information and/or an affidavit under 37 C.F.R. § 1.104(d)(2) to the extent that the statement of Official Notice and/or allegations of well-known fact may be maintained. It is respectfully submitted that the Official Notice and allegations of well-known fact are improper since the facts asserted to be well-known are not capable of instant and unquestionable demonstration as being well-known. In re

Ahlert, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 420 (C.C.P.A. 1970) (the notice of facts beyond the record which may be taken by an Examiner must be “capable of such instant and unquestionable demonstration as to defy dispute.”). It is further noted that the alleged statements of Official Notice set forth in the Office Action are set forth in the present tense. Thus, whether, for example, “it is known in the art to optimize one sensor based on information from another sensor in order to increase accuracy” is entirely irrelevant to the question of patentability of the present claims, a question that is answered with respect to a time at least as early as the filing date of the application. Furthermore, with respect to paragraphs 40 and 50, it is *not* well known to a person of ordinary skill in the art that at least one *photometric sensor* is optimized on the basis of information obtained from the at least one further sensor, wherein the at least one further sensor is a *radar sensor*.

Additionally, Applicants respectfully maintain that the Office Action dated April 26, 2010 contained no statements of Official Notice and that Applicants have adequately traversed all of the statements of Official Notice. For example, paragraph 35 of the Office Action dated April 26, 2010 merely states that “if it is held that Steinthal does not explicitly teach one sensor being optimized on the basis of information obtained from another sensor; then, it is known in the art to optimize one sensor based on information from another sensor to increase accuracy,” which does not make any statement of “well known fact” and which does adequately set forth a statement that Official Notice is taken of any allegedly well known fact. The statements appearing, for example, in paragraphs 44, 46, and 48 of the Office Action dated April 26, 2010 also fail to make any statement of “well known fact” and lack any clear articulation of Official Notice. Accordingly, Applicants maintain that the Office Action failed to take Official Notice of any allegedly well known fact, and that the Examiner’s assertions that Applicants have failed to adequately traverse purported statements of Official Notice are untenable. Therefore, Applicants again respectfully traverse all statements of Official Notice and respectfully request the Examiner to provide published information and/or an affidavit under 37 C.F.R. § 1.104(d)(2) in support of the purportedly known facts.

#### **IV. Objection to the Drawings**

The Figures were objected to for not containing a circuit that activates a predefined search routine. The accompanying one (1) Replacement Sheet adds a

circuit that activates a predefined search routine. No new matter has been added and support is provided by the present application.

In addition, the specification has been amended to add a reference numeral to the description of the circuit that activates the predefined search routine. No new matter has been added.

Accordingly, withdrawal of this objection is respectfully requested.

**V. Rejection of Claims 17 to 25, 35 and 36 Under 35 U.S.C. § 112, 1st Paragraph**

Claims 17 to 25, 35 and 36 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. It is respectfully submitted that the present rejection should be withdrawn for at least the following reasons.

As an initial matter, claim 19 has been cancelled herein without prejudice rendering moot the present rejection with respect to claim 19.

Claim 17 has been amended to recite that *the at least one photometric sensor is optimized on the basis of the information obtained from the at least one further sensor*, rendering moot the present rejection. The Examiner should note, however, that even the previous feature of optimizing one photometric sensor based on the identification of a material of the at least one object obtained from the at least one further sensor is supported and enabled by the specification. See, page 6, lines 13 to 26; page 8, line 22 to page 9, line 6; page 13, lines 5 to 21; and page 22, line 25 to page 23, line 3 of the Specification. For example, optimization occurs when specific search programs are “allocated to individual sensors that have specific advantages for the detection of such an object. When a specific programmed scenario is detected in the context of a measurement by one or more sensors, i.e. when one or more sensors give indications of, for example, a specific material, then all the sensors are set to that program, and the sensor driving and evaluation are optimized for the material that has now been recognized. More accurate results can thereby be supplied because it is possible to work, for example, with sensitivities for the individual sensors that are matched optimally to the identified object.” (see, specification, page 8, line 22 through page 9, line 6).

Regarding the rejection of claim 36, the claim has been amended to cancel herein without prejudice the feature of the *unequivocal signal*.

In view of the foregoing, it is respectfully submitted that claims 17, 18, 20 to 25, 35 and 36 are sufficiently enabled. Accordingly, withdrawal of this rejection is respectfully requested.

**VI. Rejection of Claims 17 to 25, 35, and 36 Under 35 U.S.C. § 112, 1st Paragraph**

Claims 17 to 25, 35, and 36 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. It is respectfully submitted that these claims sufficiently comply with the written description requirement for at least the following reasons.

As an initial matter, claim 19 has been cancelled herein without prejudice rendering moot the present rejection with respect to claim 19.

As stated above, claim 17 has been amended to recite that *the at least one photometric sensor is optimized on the basis of the information obtained from the at least one further sensor*, rendering moot the present rejection.

In view of the foregoing, it is respectfully submitted that claims 17, 18, 20 to 25, 35, and 36 sufficiently comply with the written description requirement for at least the above reason. Accordingly, withdrawal of this rejection is respectfully requested

**VII. Rejection of Claims 17 to 25, 35, and 36 Under 35 U.S.C. § 112, 2nd Paragraph**

Claims 17 to 25, 35, and 36 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite. It is respectfully submitted that these claims are sufficiently definite for at least the following reasons.

As an initial matter, claim 19 has been cancelled herein without prejudice rendering moot the present rejection with respect to claim 19.

Regarding the alleged lack of clarity of the claims due to the functional limitations, while Applicants do not agree with the rejection, claim 17 has been amended to recite that the at least one further sensor is *configured* to provide information including an identification of a material of the at least one object to the at least one photometric sensor, rendering moot the present rejection.

Regarding the rejection of claim 36, as stated above, the claim has been amended to cancel herein without prejudice the feature of the *unequivocal signal*.

Accordingly, it is respectfully submitted that claims 17, 18, 20 to 25, 35, and 36 are sufficiently definite for at least the above reasons.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**VIII. Rejection of Claims 17 to 19 and 35 Under 35 U.S.C. § 102(b)**

Claims 17 to 19 and 35 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,952,957 (“Szu”). It is respectfully submitted that Szu does not anticipate these claims for at least the following reasons.

As an initial matter, claim 19 has been cancelled herein without prejudice rendering moot the present rejection with respect to claim 19.

Claim 17 has been amended to recite the feature of the at least one further sensor includes a radar sensor, and at least one antenna of the radar sensor is configured to be used as a capacitive sensor. Support for the amendments may be found, for example, on page 5, lines 20 to 23, page 19, lines 12 to 16, page 21, lines 8 to 17, and in Figure 4.

Szu does not disclose, or even suggest, these features. Szu describes a system for generating and displaying an image of a target object including an infrared unit (103), a radar unit (102), a processor (101), and a display device (104). Nowhere, however, does Szu disclose a capacitive sensor, let alone the feature of at least one antenna of the radar sensor is configured to be used as a capacitive sensor.

Consequently, it is respectfully submitted that Szu does not anticipate claim 17, or claims 18 and 35, which depend from claim 17.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**IX. Rejection of Claims 17 to 19, 21, 24, 25, and 35 Under 35 U.S.C. § 102(e)**

Claims 17 to 19, 21, 24, 25, and 35 were rejected under 35 U.S.C. § 102(e), as anticipated by U.S. Patent Application Publication No. 2003/0193429 (“Campana et al.”). It is respectfully submitted that Campana et al. does not anticipate the present claims for at least the following reasons.

As an initial matter, claim 19 has been cancelled herein without prejudice rendering moot the present rejection with respect to claim 19.



Campana et al. does not disclose, or even suggest, all of the features of claim 17. Campana et al. describes a sensor array (30) containing a row of GPR sensors (70), EMI coils (80), and a row of DLIR detectors (140), whereby the sensors are connected to the processor based system (130) and are configured to look down at the ground (60) in order to detect buried objects. Nowhere, however, does Campana et al. disclose a capacitive sensor, let alone the feature of at least one antenna of the radar sensor is configured to be used as a capacitive sensor.

Consequently, it is respectfully submitted that Campana et al. does not anticipate claim 17, or claims 18, 21, 24, 25, and 35, which depend from claim 17.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**X      Rejection of Claim 20 Under 35 U.S.C. § 102(e)**

Claim 20 was rejected under 35 U.S.C. § 102(e) as anticipated by Campana et al. with alleged illustration of inherency provided by Radar Sensor for an Autonomous Antarctic Explorer, *Proc. SPIE , Mobile Robots XIII and Intelligent Transportation Systems*, volume 3525, pp. 117-124, January 1999 ("Foessel et al."). It is respectfully submitted that Campana et al. with alleged illustration of inherency provided by Foessel et al. does not anticipate claim 20 for at least the following reasons.

Claim 20 depends from claim 17 and therefore includes all of the features included in claim 17. As more fully set forth above, Campana et al. does not disclose, or even suggest, all of the features included in claim 17. Foessel et al. is not relied upon for disclosing or suggesting the features of claim 17 not disclosed or suggested by Campana et al. Indeed, it is respectfully submitted that Foessel et al. does not disclose, or even suggest, the features included in claim 17 not disclosed or suggested by Campana et al. As such, it is respectfully submitted that Campana et al. with illustration of inherency provided by Foessel et al. does not anticipate claim 20, which depends from claim 17.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**XI. Rejection of Claims 17, 18, 21 to 25, 35 and 36 Under 35 U.S.C. § 102(e)/103(a)**

Claims 17, 18, 21 to 25, 35 and 36 were rejected under 35 U.S.C. § 102(e), as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 7,034,677 ("Steinthal et al."). It is respectfully submitted that Steinthal et al. does not anticipate or render unpatentable the present claims for at least the following reasons.

Steinthal et al. does not disclose, or even suggest, all of the features of claim 17. Steinthal et al. describes sensor array detectors capable of producing a response in the presence of physical stimuli. The Examiner, on page 14 of the Office Action, cites column 21, lines 58 to 61 of Steinthal et al. as allegedly disclosing that the at least one further sensor includes a capacitive sensor. While Steinthal et al. may disclose the use of sensors capable of detecting capacitance, nowhere do Steinthal et al. disclose that *antennas of a radar sensor are configured to be used as the capacitive sensor*.

As such, it is respectfully submitted that Steinthal et al. does not disclose, or even suggest, all of the features included in claim 17. Consequently, it is respectfully submitted that Steinthal et al. does not anticipate, or render unpatentable, claims 18, 21 to 25, 35 and 36, which depend from claim 17.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**XII. Rejection of Claim 36 Under 35 U.S.C. § 102(b)/103(a)**

Claim 36 was rejected under 35 U.S.C. § 102(b), as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Szu. It is respectfully submitted that Szu does not anticipate or render unpatentable the present claim for at least the following reasons.

Claim 36 depends from claim 17 and therefore includes all of the features included in claim 17. As more fully set forth above, Szu does not disclose, or even suggest, all of the features included in claim 17. As such, it is respectfully submitted that Szu does not anticipate claim 36, which depends from claim 17.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**XIII. Rejection of Claim 36 Under 35 U.S.C. § 102(e)/103(a)**

Claim 36 was rejected under 35 U.S.C. § 102(e), as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over Campana et al. It is respectfully submitted that Campana et al. does not anticipate or render unpatentable the present claim for at least the following reasons.

Claim 36 depends from claim 17 and therefore includes all of the features included in claim 17. As more fully set forth above, Campana et al. does not disclose, or even suggest, all of the features included in claim 17. As such, it is respectfully submitted that Campana et al. does not anticipate claim 36, which depends from claim 17.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**XIV. Conclusion**

It is therefore respectfully submitted that the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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